

Police Corporate Data Model (CorDM)

Read Number Plates Automatically (ANPR) Business Area View

REFERENCE: Police CorDM Read Number Plates
Automatically (ANPR) Business Area View

AUTHOR: Information Standards Team

VERSION NUMBER: 3.0



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Product Control Page

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Issue Control:		
Version	Date	Description
Version 1.0	31-07-2003	Publication in CorDM version 1
Version 2.0	30-11-2006	Updated to Version 6 standard
Version 3.0	30-11-2007	Updated to Version 7 standard

1 PURPOSE

This paper documents the diagrams that have been developed for the ANPR (Automatic Number Plate Recognition) business area within the Police Corporate Data Model (CorDM).

2 BACKGROUND

A force may create a number of hot lists of vehicles in which they have an interest. Each hot list may be documented as having a specific reason and may be associated with an operation.

Against each vehicle on the hot list can be recorded the action to be taken if the vehicle is sighted. Also alerts can be recorded to warn officers about likely dangers in stopping the vehicle.

ANPR devices will read plates and automatically determine if the VRM read is for a vehicle held on a hot list. If it is, action can be taken to verify the read and decide what action to take, based on the actions recorded on the vehicle and the prevailing circumstances.

Each hot list has a police worker along with his or her contact details for use in the event of a sighting or query.

3 SCOPE

The scope of ANPR modelling within CorDM is currently limited to the requirements of the National ACPO ANPR Standard (NAAS). The purpose of the NAAS standard is to facilitate the transfer of ANPR information between ANPR systems. The additional data requirements of the Back Office Facility processes are noted as a gap in the CorDM and may be added at a later date.

4 DATA MODELLING NOTES

Hot List ownership has been assigned to Police Organisation, while Police Worker has been made a hot list manager. The NAAS (National ACPO ANPR Standard) data model shows both Organisation and Worker as owner. A comment has been raised on the NAAS model.

The Response required to activation (PNC) object, which is included in the NAAS model, has not been modelled. It is considered as legacy application-specific data (i.e. PNC).

NAAS has the Direction Of Travel attribute on the Camera object. We have raised a query about mobile cameras and vehicles travelling the

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CorDM V7 Read Number Plates Automatically (ANPR) Business Area View

wrong way on a dual carriageway. Meanwhile we have attributed it to the ANPR Facility and the ANPR Reading.

The NAAS data model has Other System Reference ID to record, for an ANPR Reading, a reference number on a related object on another system, e.g. Command & Control. We have implemented this by creating an association to Incident.

Captured VRM has been created as a superclass of ANPR Reading with the intention of making Frame (from VP/FPO Business Area) a subclass of it later.

Operation has been created as a subclass of Business Info to provide the Operation Name attribute (via Business Info Name Text). No detailed modelling has been done to expand this class, but it is noted as a gap in the CorDM.

The warnings held against vehicles in the NAAS model have been modelled in CorDM as both Person Warning Signals and Motor Vehicle Alerts, in the belief that some warnings belong to a vehicle because the person is not known while others belong to a person who has an association with the vehicle.

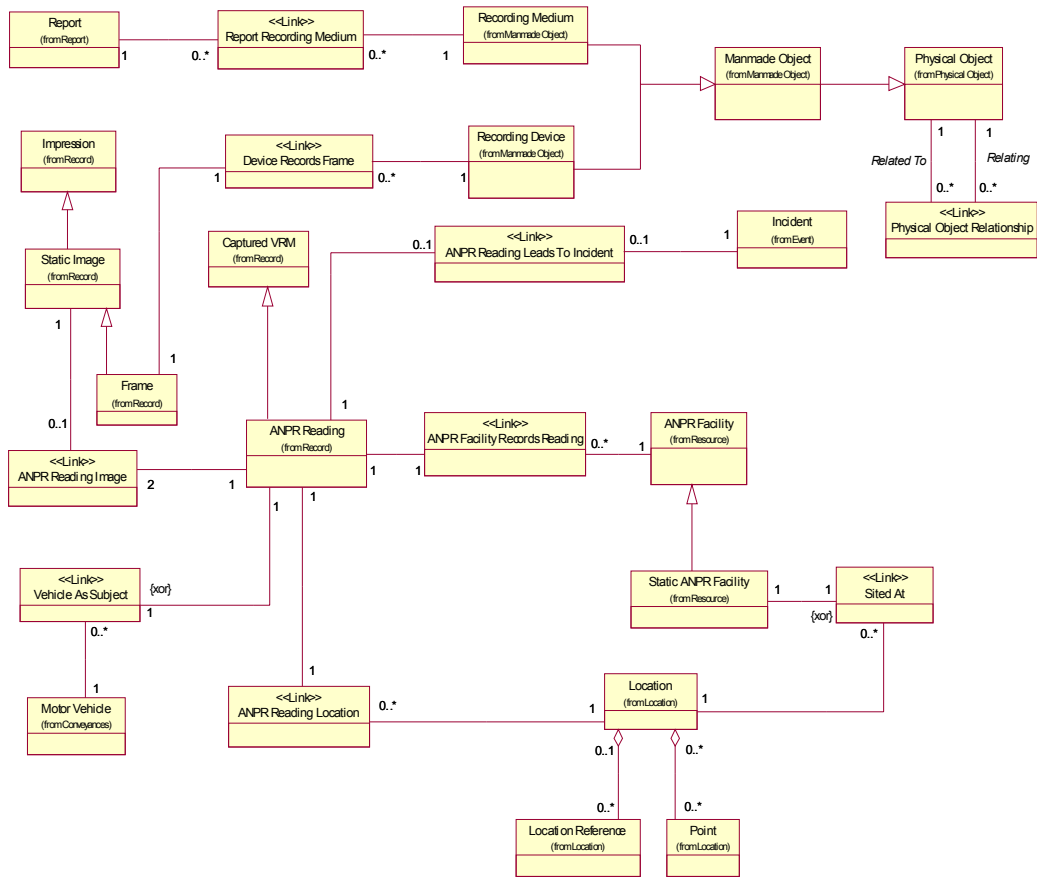


Figure 1: ANPR Reading

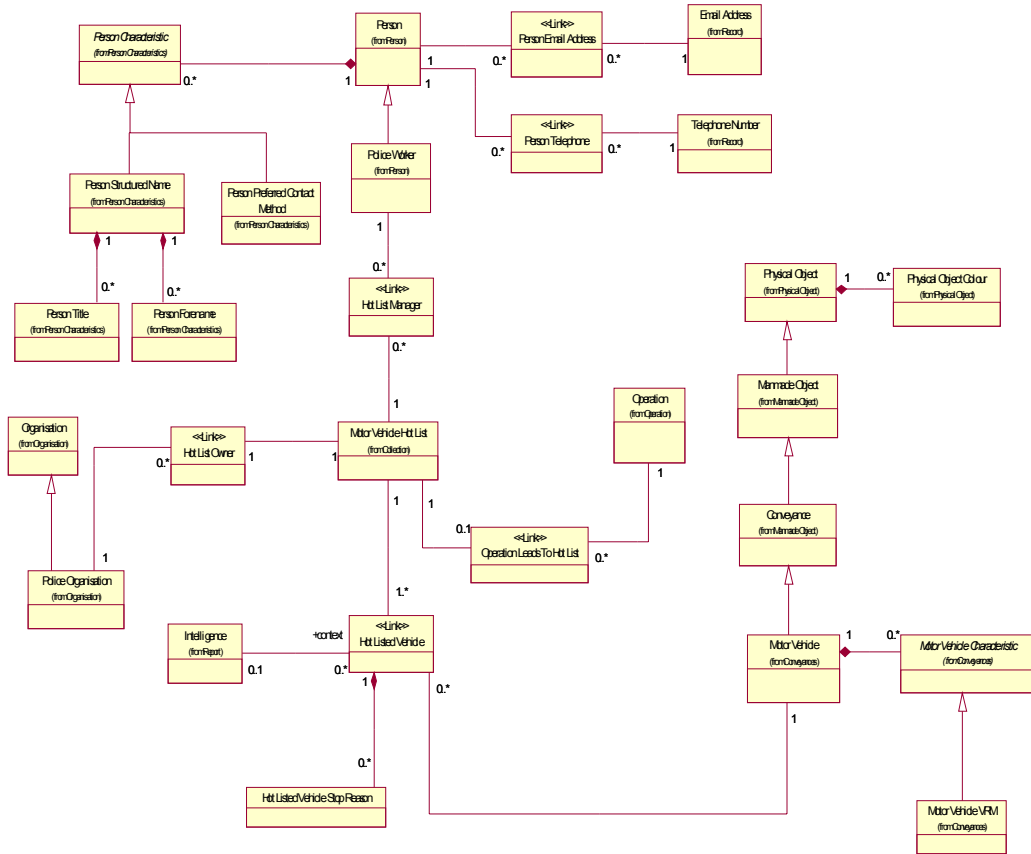


Figure 2: Vehicle Hot List

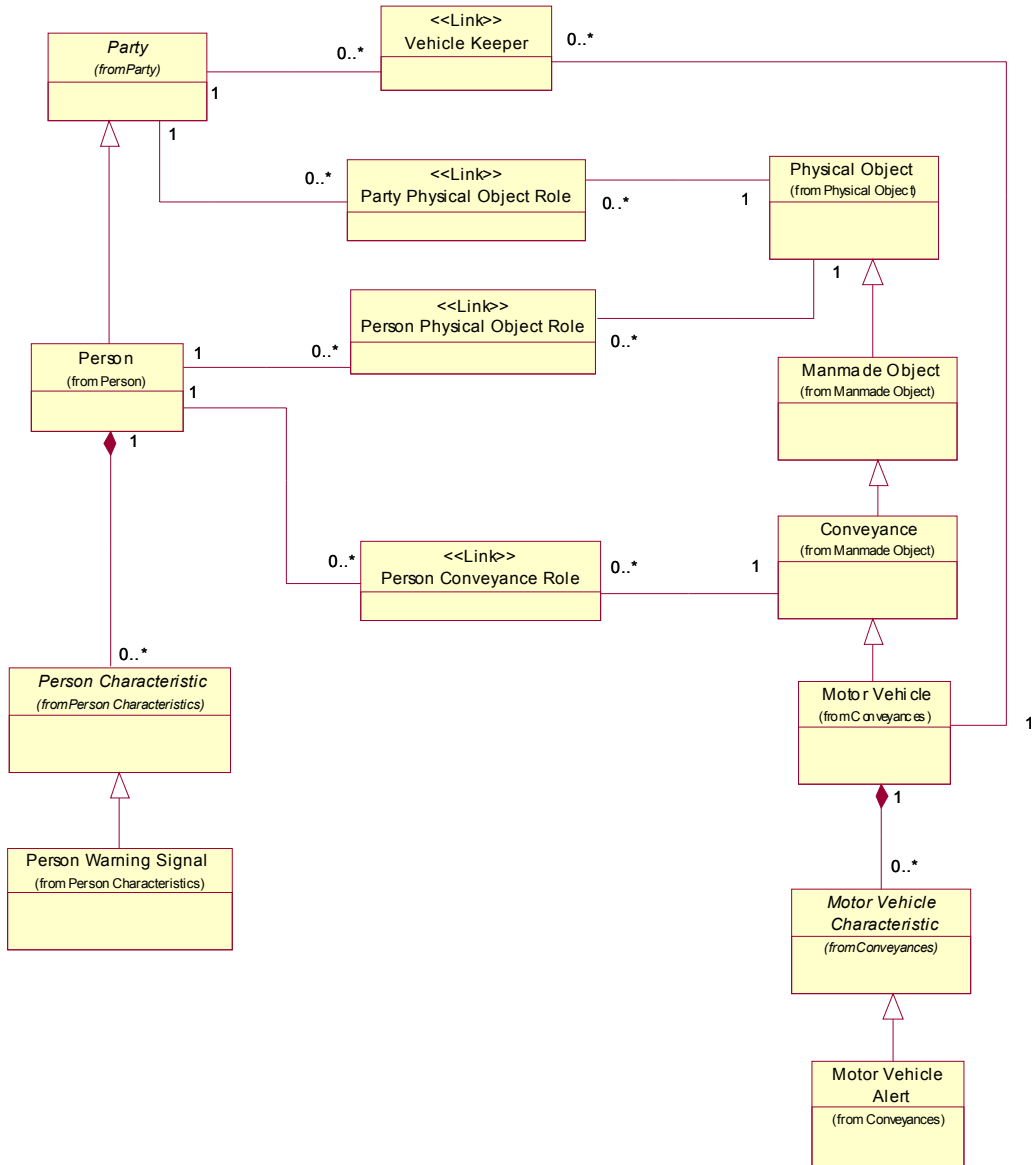


Figure 3: Warnings and Alerts